

Virtual Reality and Rehabilitation Medicine

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Rehabilitation

- Examines physical, cognitive and emotional changes that can occur from....

Traumatic brain injury

Stroke

Multiple Sclerosis

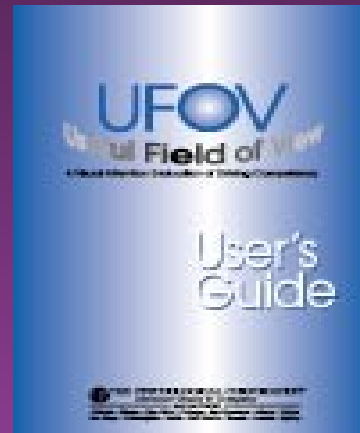
- Goal: return to activities of daily living.....

work

drive

school

Traditional Methods



VR Benefits

- increased standardization
- “real-life” testing & training environments
- control of stimulus presentation and response
- increased generalization of learning
- safe assessment of hazardous situations
- increased user participation

Research

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graph TD; Research[Research] --> ResearchText[Examine specific cognitive demands of driving]; ResearchText --> ResearchBox["Divided Attention & Driving: A VR Approach"]; Clinical[Clinical] --> ClinicalText[New methodology for assessment of driving capacity]; ClinicalText --> ClinicalBox["The Use of VR for Driving Assessment Following Acquired Brain injury"];
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Clinical

*Examine specific
cognitive
demands of driving*

*New methodology for
assessment of
driving capacity*

“Divided Attention &
Driving: A VR
Approach”

“The Use of VR for
Driving Assessment
Following Acquired
Brain injury”

Divided Attention & Driving



System:

- Flat-screen VR
- JAVA 3D programming
- Gateway Pentium III
- WingMan Steering

Wheel and pedals



SIMPLE
Divided
Attention



COMPLEX
Divided
Attention

VR-Driving Assessment System

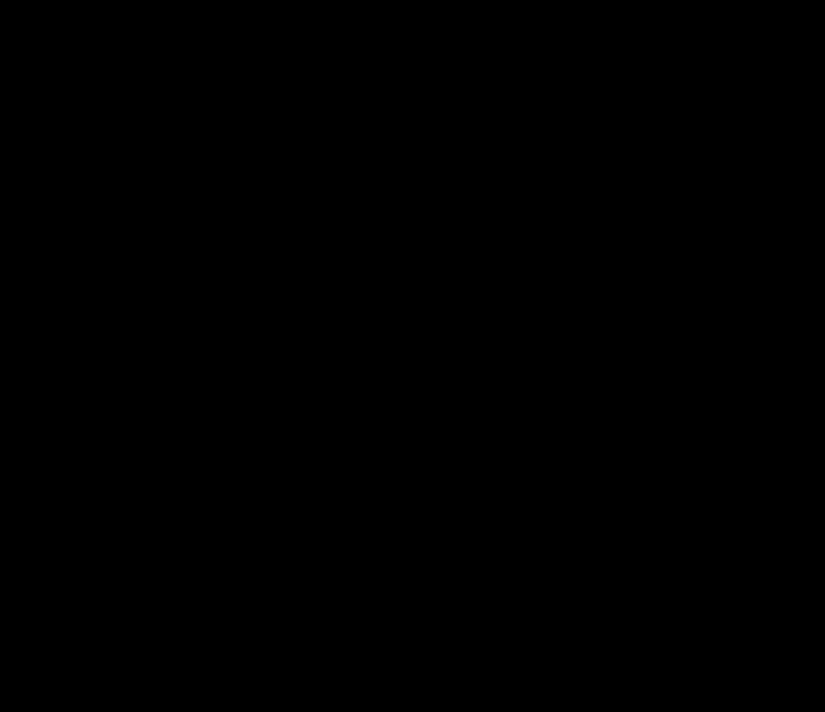
Subjects:

- traumatic brain injury
- stroke
- healthy controls

System:

- JAVA 3D programming
- Gateway Pentium III
- ProView XL HMD
- ThrustMaster Steering Wheel and pedals





(video)